

REMARKS

Claims 14-29 are pending in this application. Claims 1-13 were previously canceled. With this Reply, Applicants have amended claims 14-21 and 26-29. Several of the pending claims have been rejected under § 101, § 112 and/or § 102. Applicants respectfully request reconsideration of the application in view of the amendments and the following remarks, which address each of the rejections and objections raised in the Office Action.

Claim Amendments

Claim 14 has been amended to modify the definition of various substituents and to delete the terms “heterocyclic (ring),” “heterocyclic (ring)-alkyl” and “solvates.” Clauses relating to moieties jointly formed by X^4 and R^1 and/or X^5 and R^2 have been removed. In addition, variable B is now defined as a “heterocycle selected from the group consisting of pyrimidine and purine bases” as it is claim 28, and the definition of X has been modified, as suggested by the Examiner, to replace “oxygen” and “sulfur” with the divalent moieties “-O-” and “-S-” respectively.

Claims 15 and 16 have been amended to delete the terms “including” and “solvates.”

Claims 17-19 have been amended to correct the nomenclature of “diaminopurine,” as suggested by the Examiner (see page 7 of the Office Action), as well as several other

terms listed therein, and to replace the term “derivatives” with the term “analogues,” which has descriptive support at, for example, page 9, line 24, through page 10, line 3, of the application.

Claim 20 has been amended to modify the definition of V and Phos. Support for these changes may be found, for example, at page 58, line 3; page 59, line 27; page 60, line 15; and page 9, lines 10-16, of the application.

Claim 21 has been amended to delete the terms “pro-drug” and “solvate.”

Claim 26 has been amended to modify the definition of V. Support for this change may be found, for example, at page 58, line 3; page 59, line 27; and page 60, line 15, of the application. In addition, the definition of U has been amended to include the proviso suggested by the Examiner (see page 9 of the Office Action).

Claim 27 has been made independent.

Claim 28 has been amended to delete the terms “heterocyclic,” “heterocyclic-alkyl,” “including” and “solvates.”

Claim 29 has been amended to correct nomenclature as suggested by the Examiner (see page 8 of the Office Action).

The claims have also been amended to correct add the word “and” to certain Markush groups identified by the Examiner, and to correct various minor typos and grammatical errors. No new matter has been added by these amendments.

The Drawings

The Office Action indicates that formal drawings will be required when the application is allowed. In addition, the Office Action asserts that the indicia of process steps denoted in the Figures by letters “a,” “b,” ... “h” and the like have not been defined in the Figures or in the Brief Description of the Drawings. However, all of these process steps have been fully defined in detail at pages 57-75 of the application. Applicants respectfully submit that it is not necessary and would be redundant to import all of the information into the Brief Description of the Drawings section, which is intended to be merely a brief summary with the complete details being provided later in Detailed Description section of the application. Applicants, therefore, believe that no modification of the Brief Description of the Drawings section should be required.

Rejection Under 35 U.S.C. § 101

Claims 20 and 26 stand rejected under 35 U.S.C. § 101. The Examiner asserts that the definition of variable V as “silyl” includes structural alternatives wherein Si-H bonds are present. Consequently, a substantial portion of the compounds encompassed by the claim are pyrophoric and thus lack utility. Applicants have now amended variable V to be either “trimethyl silyl” or “*tert*-butyldimethylsilyl.” Applicants respectfully submit that, in view of this amendment, the § 101 rejection has been overcome and may now be withdrawn.

Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 14-20 and 22-29 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking enablement in the specification. The Examiner asserts that the specification does not enable the synthesis of the vast array of compounds recited in these claims. The Examiner asserts that determination of the scope of the claims is further complicated by the presence of indefinite terms such as “derivatives” (claims 17-19) or “Phos” (claim 20). Applicants respectfully traverse this rejection as applied to the amended version of the claims.

Applicants submit that, due to the amendments brought into claims 14 and 17-20, this rejection should be withdrawn. By amending the definition of R^1 and R^2 , and by deleting definitions of the combined substituents X^4 and R^1 , and X^3 and R^2 , respectively, it can readily be seen that the subject matter claimed is commensurate in scope with what is described in detail at pages 57 to 96, and structurally shown in Figures 1 to 15. In particular the specification enables the skilled person to achieve a desired stereoisomer without undue experimentation.

In addition, the term “derivatives,” which appears in claims 17-19, is now replaced with the term “analogues,” which is clearly defined at page 9 of the specification, and the term “Phos,” which appears in claim 20, is now clearly defined as “a phosphonate coupled via a C_{1-6} alkyl group to an oxygen or sulfur atom, said oxygen or sulfur atom being itself coupled to the tetrahydrofuran skeleton of said compound” (this definition

appears, for example, on page 9, lines 10-16, of the specification.)

Applicants respectfully submit that the rejection under § 112, first paragraph, has been overcome by the present amendments and should therefore be withdrawn.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 14-29 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly pointing out and distinctly claim the subject matter. Applicants respectfully traverse this rejection as applied to the amended version of the claims.

On pages 5-8 of the Office Action, the Examiner identifies various clarity issues relating to the instant claims. Applicants respectfully submit that the present amendments to claims 14-29, which are described in detail above, address all the indefiniteness issues raised by the Examiner. These rejections should therefore be withdrawn.

With respect to the objection to the disclosure for failing to define the terms “natural or non-natural nucleobase,” which had been used in the claims, Applicants note that these terms have now been removed from the claims and thus it should not be necessary to provide any further definition of these terms in the specification. This objection may therefore be withdrawn.

Rejection under 35 U.S.C. § 102 (b)

Claim 26 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Dujardin. The Examiner has suggested that this rejection may be overcome by a proviso that excludes the prior art α -ketoacyl groups from this claim (see page 9 of the Office Action). Accordingly, Applicants have added the disclaimer of such ketoacyl groups of Dujardin with respect to the definition of variable U. This rejection may now be withdrawn.

CONCLUSION

In view of the foregoing Amendment and Remarks, Applicants submit that amended claims 14-29 are in condition for allowance, and such action is respectfully requested.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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